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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,640	01/24/2006	Tony Loriger	5791	2997
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EXAMINER BOMAR, THOMAS S				
ART UNIT		PAPER NUMBER		
3676				
MAIL DATE		DELIVERY MODE		
05/16/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/565,640

Applicant(s)

LORGER ET AL.

Examiner

Shane Bomar

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed February 14, 2008 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. The IDS recites a foreign reference number WO 03/42492 published on May 22, 2003. However, the Applicant has supplied foreign reference number WO 03/004292 with a different publication date, and the reference is directed to a vehicle door mount that appears to have no relevance to the currently claimed invention.

Claim Objections

2. Claim 8 is objected to because of the following informalities:
- a. the recitation of "the sample recovery bore" in claim 8 lacks proper antecedent basis; and
 - b. the recitation of "said air passages" in line 7 of claim 8 should be --said upper air passages-- for clarity purposes.

Appropriate correction is required. It is also noted that these objections were not addressed by the Applicant, and are thus repeated above.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 8, 9, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,407,021 to Kane et al.

Regarding claims 8 and 9, Kane et al disclose a downhole hammer drill including: a drive sub 38 mounted on an air hammer drill casing 32; and a reverse circulation drill bit 42 having a bit shank mounted in splined relation to said drive sub and a bit head adapted to extend below said drive sub, the air hammer motor exhausting down the splines 40/46, an exhaust air passage formed in said bit shank adjacent said bit head and adapted to receive air exhausted at the lower end of the bit shank splines, a plurality of upper air passages 80 that are at least partially inclined relative to the axis of the bit head, intersecting said exhaust air passage, and directing sample accelerating air from said exhaust air passage up a sample recovery bore 54 of said bit, said bit head having at least one lower air passage 74B therethrough and intersecting said exhaust air passage, said lower air passage having a lower end directing air to the cutting face of the bit through an outlet through the side of the bit head communicating with a channel passing from said outlet to said cutting face 44 (Fig. 1; col. 3, lines 24-52; col. 4, lines 1-28). It is noted that piston 36 is located in the drill casing and is driven by air to drive the bit. Thus, the piston acts as a motor in the drill casing.

Regarding claims 17 and 18, the upper air passages 80 open form a spline in the region of the bit head via an exhaust air passage 74 formed in the shank adjacent the head, where the exhaust air is directed from the exhaust passage 74 through the bit head by lower passages 74B (Fig. 1).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kane et al in view of US 20050199429 to Terlet et al.

Regarding claims 10 and 14-16, Kane et al teach the downhole hammer drill of claims 8 and 9; although, it is not specifically taught that there is a gauge row on the bit, or that there is a dynamic seal to the borehole.

Terlet et al teach a hammer drill similar to that of Kane et al. It is further taught that the hammer drill has a gauge row and that the air flow exiting the side of the bit and continuing to the face of the bit creates a dynamic seal to the borehole (Fig. 5; ¶ 0041). Thus, all of the component parts are known in Kane et al and Terlet et al, the only difference is the combination of the "old elements" into a single drill bit. Therefore, it would have been obvious to one having ordinary skill in the art to mount the gauge row on the bit of Kane et al to achieve the predictable results of drilling the hole to gauge diameter.

With respect to claims 11-13, these claims are clearly in the product-by-process form and, as is office practice, product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. See MPEP 2113 [R-1]. Therefore, as can be seen in Figure 5 of Terlet et al, the carbide buttons are inserted into holes that have been counter bored to accept the buttons, and as can be seen in Figure 1 of Kane et al, the upper and lower air passages are drilled so that they are a continuation of one another and intersect the sample recovery bore 54.

Response to Arguments

8. Applicant's arguments filed February 14, 2008 have been fully considered but they are not persuasive. The Applicant argues that Kane et al does not teach that the upper air passages are inclined toward the axis of the bit away from the head. However, Figure 1 of Kane et al appears to clearly show that at least a portion of the passages is upturned so as to be inclined toward the bit axis as the Application currently claims. The Applicant also argues that Kane et al require additional passages 74, but the claim does not preclude any such additional passages, and just because a reference teaches more than what is claimed does not mean that the reference does

not anticipate the claimed invention. Also, the Applicant mentions that Kane et al's invention will create turbulence detrimental to the effect at the bit face, but again, the claims do not preclude the presence of this alleged turbulence. Therefore, the Examiner believes the Kane et al reference to still encompasses all which is currently claimed by the Applicant.

Lastly, the Applicant mentions that it is understood that the non-elected species claims may be rejoined if a claim generic to them is allowed. However, claim 1 is an independent claim that encompasses the non-elected species. Thus, there are no claims generic to the non-elected species as the non-elected species does not depend on any of the currently elected claims. The claims will not be rejoined if any of the currently elected claims become allowable.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shane Bomar whose telephone number is (571)272-7026. The examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer H. Gay can be reached on 571-272-7029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shane Bomar/
Examiner, Art Unit 3676